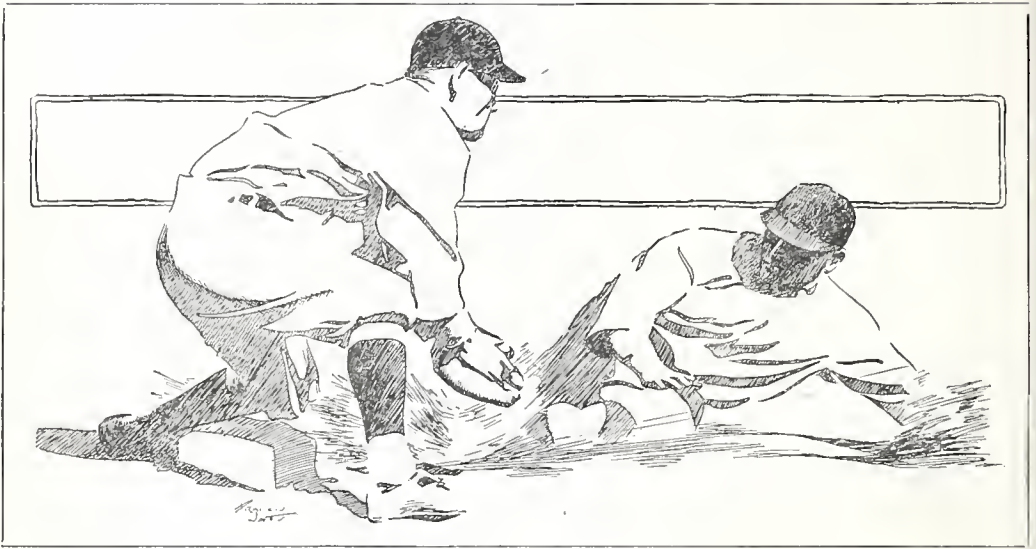


# KEEPING FIT



*Issued by*  
***The United States Public Health Service***  
*Washington, D. C.*

## WHAT FITNESS DEMANDS.



1. Muscular Strength.
2. Endurance.
3. Energy.
4. Will Power.
5. Courage.
6. Self-Control.

(2)

# KEEPING FIT

---

To be in prime physical condition and to keep fit is the ambition of every normal youth. By intensive athletic training a man may become a great sprinter or football player. The wiser aim for most young men is to be in condition all the time for any kind of sport, any kind of work, any task a man may be called upon to perform. The reward of keeping fit is vigorous manhood. At least six qualities should be sought if the full vigor of manhood is to be achieved. One of these is strength of muscle. One may have strength in his muscles without having very big muscles. Quality is more important than quantity. Both may be developed by exercise. Endurance is a second important quality. It is the ability to stay in the game when others become tired and discouraged. A third quality is energy; lack of it means laziness. Critical moments in athletics show the importance also of self-control and will power. And courage, though it may not be needed every day, is, of course, essential.

Capt. Robert F. Scott, who reached the South Pole in 1912, gave the world a wonderful record of endurance, energy, will power, and courage. When Livingstone faced the dangers of fever, sunstroke, wild animals, and savages, and traveled 1,000 miles into the heart of Africa, all the qualities of vigorous manhood were necessary. Lincoln, as a youth, could sink an ax deeper into a tree than any other man in the community. He could outlift, outwork, and outwrestle other men. He showed vigor of manhood.

## HOW VIGOROUS MANHOOD IS ACHIEVED.

Those who would achieve the maximum vigor must observe at least five essentials. The first of these is sufficient exercise of the right kind. Reading the sporting page, yelling in the grandstand, and watching the baseball bulletin boards may be enjoyable, but will never make a man vigorous. He himself must take daily exercise. Hiking, baseball, rowing and canoeing, skating in the open air, swimming, if taken moderately, general gymnasium work, boxing and wrestling where the air is fresh, are among the most beneficial forms of exercise.

A young man's daily exercise should be vigorous enough to cause him to perspire freely. This helps his body to throw off certain waste products which would act as poisons if they were allowed to accumulate. After exercise a bath should be taken. A shower is

better than a tub bath. A washbowl or any contrivance is better than nothing. Warm water should be used first, then cold. The bath should be followed by a vigorous rub-down with a coarse towel, the whole process taking no longer than four or five minutes. The bath and rub-down should produce a healthy glow of the body and a general feeling of well-being.

Second, young men should sleep in the fresh air, work and exercise in the fresh air as much as possible, and be sure to have the indoor air kept fresh. Fresh air is often more valuable than any quantity of medicine.

In the third place, most young men need at least eight hours' sleep every night, and most boys between the ages of 13 and 16 need from

### TRAINING RULES.

1. Exercise Wisely.
2. Eat Wholesome Food.
3. Get All the Fresh Air Possible.
4. Take Sufficient Rest.
5. Keep Clean.

eight and one-half to nine and one-half hours. With less, one can get along, but he can not keep himself in the best possible physical condition. One should not lie in bed after waking up, but should jump out and dress immediately.

Proper food is another requirement. One should eat chiefly fresh vegetables, cereals (wheat, oatmeal, and rice), bread and butter, eggs, and fruit, with fresh meat or fish not oftener than once a day. The system needs not only the kind of food that is rich in nutriment, but vegetables and other coarser food to give bulk and stimulate the action of the intestines. All food should be chewed to a pulp.

Not only is it necessary to eat wisely, it is also important to pass off the waste materials by regular movements of the bowels. When this is not done, one becomes constipated and is likely to have headaches and general ill health. Regular movements of the bowels are aided by the abundance of exercise and by eating plenty of fruit and drinking plenty of pure water.

### *The relation of the reproductive organs to vigor.*

Finally, if one is to win vigorous manhood he should understand the relationship of the reproductive organs to vigor. This relationship needs to be carefully explained, because, while the facts are important, they are not generally understood. It would not be possible for a small, immature boy to achieve the full vigor of manhood were it not for the reproductive or sex organs.

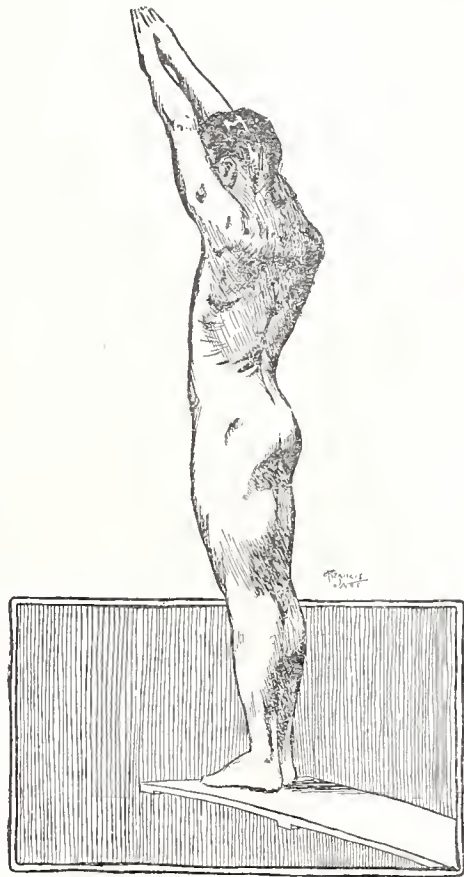


Boys who live in the country know why a stallion is a more vigorous animal than a gelding. All male colts have two glands called testicles which hang from the body in a sack. Most male colts are "cut," "altered," or "castrated." This means that the testicles (or balls) are removed. When this is done the colt becomes a gelding. When the colt is not cut it becomes a stallion. The stallion has larger muscles, a finer, stronger body and more vigor. He becomes a finer horse because his testicles were not cut away. Remaining as a part of his body, they make a secretion which is taken into the blood and aids in the development of strength and vigor.

In some oriental countries, when slaves that can be easily managed are wanted for the king's palace, little boys are sometimes cut or castrated and are allowed to grow up without testicles. Their beards fail to grow; their voices do not change, and they are likely to become cowardly, tricky, and indolent. They do not become men.

Every man and every boy has two glands, called testicles, which hang from the lower part of the body. These glands are somewhat similar to other glands in the body—such as the glands of the mouth, which secrete saliva. The sex glands, however, make *two* secretions. One secretion contains the male cells which enable the boy to have children when he marries (this subject will be discussed later). The other secretion, called the "internal" secretion, is never seen, but it exerts a profound influence on the development of the body and the personality. The blood takes it to the muscle and the brain. It gives tone to the muscle, power to the brain, and strength to the nerves.

At about the age of 13, 14, or 15 years, and sometimes earlier or later, boys undergo many physical changes. The shoulders broaden; the height increases; the voice changes; the hair begins to grow coarser and longer on the face, under the arms, and around the sex organs. These organs themselves (the scrotum or bag, the



**A HEALTHY BODY.**

two testicles, and the penis) increase in size at this time. All these changes are natural and are to be expected. If they occur as late as 15, 16, or 17 years of age, however, the boy should not worry. In some respects he has an advantage over the boy in whom they take place much earlier.

Athletics, abundant outdoor life, wholesome companions, lots of good fun, constant employment will help a boy break the habit called "self-abuse" (in case he has acquired the habit) and recover from any harm it may have done. Most boys who have abused themselves stop before any great harm is done. Self-abuse does not produce the terrible effects some persons say it does; it may, however, seriously hinder a boy's progress toward vigorous manhood. It is a selfish, childish, stupid habit. The strong boy will "cut it out."

The foreskin of the sex organ should be in such a condition that one can draw it back when bathing and wash it clean. This will prevent the accumulation of an irritating, cheesy substance under the foreskin. If the condition of the organ prevents it thus being kept clean, circumcision may be resorted to upon the advice of the family physician. The youth should not worry if the sex organ becomes hard and erect at times. If he will give his attention to some other interest, the condition will disappear.

#### *Seminal emissions.*

Inside the body, near the bladder, are two other glands, called the seminal vesicles. When a youth reaches the age of 15, 16 or 17 (though it may be earlier or later), these glands become filled with a fluid which is occasionally discharged from the sex organ in the night. This discharge is called a seminal or nocturnal emission. It is frequently accompanied by a dream. It is a perfectly normal experience, which almost all boys have. It may come several times a month, or only once in two or three months. A few boys and young men never have emissions. Seldom will a boy feel any ill effects from emissions. Boys need not and should not worry about these experiences.

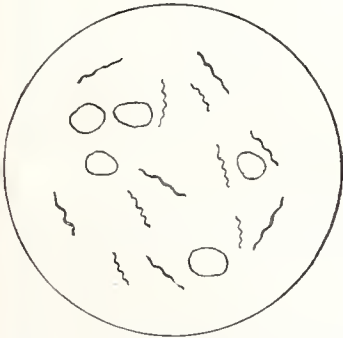
Knowing these facts, the young man will not permit himself to become the victim of quack doctors. In many cities unscrupulous men advertise to cure "lost manhood," "nervous debility," "pimples," and disorders which have nothing to do with sexual health. They try to frighten the ignorant into paying large sums of money for the "cure" of diseases which do not exist. Many boys are bothered by pimples on the body when they reach the age of about 15, 16, or 17. These are *not* an indication of any sexual disorder whatsoever, and they need cause no worry.

## SEX DISEASES.

There are real sex diseases, however, against which boys and young men need to be warned. They are sometimes called the "venereal diseases." The principal sex diseases are syphilis and gonorrhea. These diseases are in some respects worse than small-pox. They are germ diseases which are communicable or "catching." Syphilis and gonorrhea are "caught" from other persons who have them, generally from prostitutes (women who sell their bodies to gratify the lust of man). All prostitutes, whether they are professionals who sell themselves for money, or girls who only occasionally have sex relations with men, are dangerous. In general, it may be said that some prostitutes are diseased all of the time and all of them some of the time. A large proportion of such women are feeble-minded. They are to be pitied and avoided.

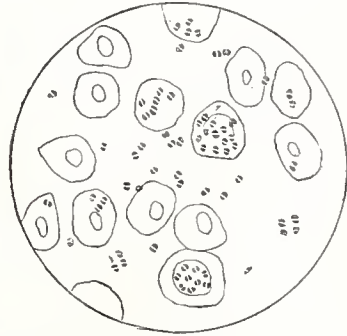
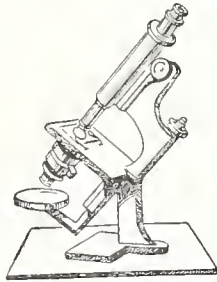
### *Gonorrhea.*

This disease is sometimes called "clap" or "a dose." Gonorrhea in itself is a painful disease of the sex organs. It may lead to a serious kind of rheumatism; it may affect the testicles so as to cause sterility (inability of the man to become a father) or it may result in bladder disease, or disease of the kidneys or other organs.



GERMS OF SYPHILIS

[The syphilis germs are the spiral-shaped objects seen in the above diagram.]



GERMS OF GONORRHEA

[The gonorrhea germs are the small kidney-shaped objects. They are always found in pairs.]

### WHEN MEN FAIL TO CONTROL

their sex impulses and have sex relations with girls, they are often infected with a venereal disease.

The Principal Venereal Diseases are:

GONORRHEA, commonly called "clap."

SYPHILIS, sometimes called "pox."

Frequently gonorrhea appears to be cured, when in reality the germs remain in the deeper parts of the body. Years afterwards when a man is married to a lovely woman, whom he would not harm for anything in the world, the disease may break out in the man and be transmitted to his wife. Among women infected with gonorrhea many become life-long invalids. Many are never able to have children; serious operations frequently are necessary. Oftentimes babies are born to them who become blind a few hours after birth.



Gonorrhea may be cured, but months of careful, steady treatment are often necessary to effect a permanent cure.

### *Syphilis.*

This disease is sometimes called "pox." The germs may get into the blood and reach any part of the body. An infected person may give the disease to another through a kiss or by transmitting the germs to a drinking glass and from the drinking glass to another person.

The most serious results of syphilis may appear years after the first infection. It sometimes causes paralysis or softening of the brain.

A man who has had syphilis may transmit the disease to his wife without knowing it.

Syphilis has a murderous effect upon children. As a result of the disease, children are sometimes born dead. Others are born defective. Still others attain maturity seriously handicapped by general ill-health.

Syphilis may be cured, but a cure often takes one or more years.

### *The prevention of sex diseases.*

In order to protect young women from venereal diseases, a father should take measures to assure himself that the man whom his daughter marries is free from these diseases. He has a right to demand from him a certificate of health, showing freedom from both syphilis and gonorrhea.

Some ignorant men hold that sexual intercourse is necessary to physical health, but this is contrary to the best medical authority. A statement recently signed by 360 foremost medical men in the United States, declares that there is no evidence that abstinence from sex activity is "inconsistent with the highest physical, mental and moral efficiency." Men who act upon the belief that sex activity is necessary often find out to their sorrow that sexual intercourse for them has resulted in disease and not health. When a prize fighter is training for a fight and needs all the vigor and endurance possible, his trainer insists upon abstinence from sexual activity.

### *Mind and body.*

The condition of the mind has considerable to do with sex health. Various mental conditions often cause bodily changes. For instance: sorrow, a mental condition, may cause loss of appetite. The smell of a lemon makes the saliva flow more freely. Likewise, if a boy or man frequently permits himself to look at suggestive pictures, to listen to vulgar stories, and to indulge in lewd thoughts, he brings about a mental condition which may lead him some day later into a



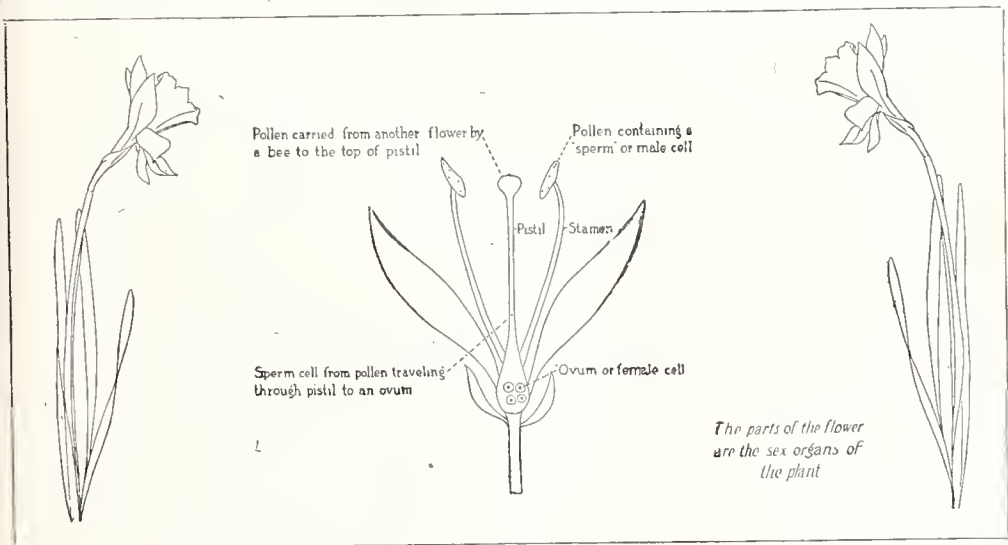
house of prostitution. Furthermore, such indulgence develops a low attitude toward sex, which (as we shall see) ought to be associated with the finest and most beautiful relationships in life. While it is not always possible to prevent lewd ideas coming to one's attention, it is possible, by using one's will power, to direct the attention away from them and center it on wholesome subjects. Some young men will need to learn the trick of switching the thoughts away from vulgar subjects quickly to sports, school work, or other helpful activities. The mind should not be made a cesspool, but a reservoir.

## REPRODUCTION.

The first function of the sex or reproductive organs is to develop the boy into a vigorous man. The other function is to enable him to reproduce himself when he becomes mature and the head of a family. By the process of reproduction, all forms of life—flowers, trees, birds, fish, wild and domestic animals, and human beings—are perpetuated on the earth. If the function of reproduction did not exist in life, the earth would soon become barren. Since reproduction is essential in human life, it is important to understand how life is passed from one generation to another.

### *Reproduction in plant life.*

In many forms of plant life the flower contains the reproductive organs. In its center is a single central organ called the pistil.



Around it are several stems, called stamens, on the top of which is the yellow dust, or pollen. At the base of the pistil is a receptacle, called the ovary, in which are very small particles, called germ cells or ova. Cells of a different kind develop from the pollen. The ova may be called the female cells, and the cells which

develop from the pollen the male cells. When the flower is in full bloom it is ready to do its part in reproducing the plant. As bees fly about from one plant to another they carry pollen from flower to flower. Part of this pollen is brushed off on the tops of the pistils. Germ cells from the pollen go down through the pistil into the ovary, where they fertilize the ova; that is, they make the ova capable of growing. After the ova are fertilized, they slowly develop into seeds. The upper part of the flower dies and drops away. The ovary becomes a seed pod, in which several fully matured seeds can be found. These may be kept through the winter. When planted in the spring they produce other plants like the one from which they came.

### *Reproduction in animal life.*

The salmon of the Pacific Ocean furnish interesting examples of reproduction in animal life. In the spring they swim into the rivers and find shallow, sheltered places for nests. There the female lays a large quantity of eggs. She then swims away and the male comes to the nest and deposits from his body a quantity of fertilizing fluid, containing cells called sperms. Thus they work back and forth until the female has laid several thousands of eggs. Many are fertilized by the sperms and develop into young fish. The parent fish, however, are exhausted by the process of reproduction. They drift down the stream in a helpless condition and very few ever reach the ocean alive. They give up their lives in producing their young.

### *Reproduction in human life.*

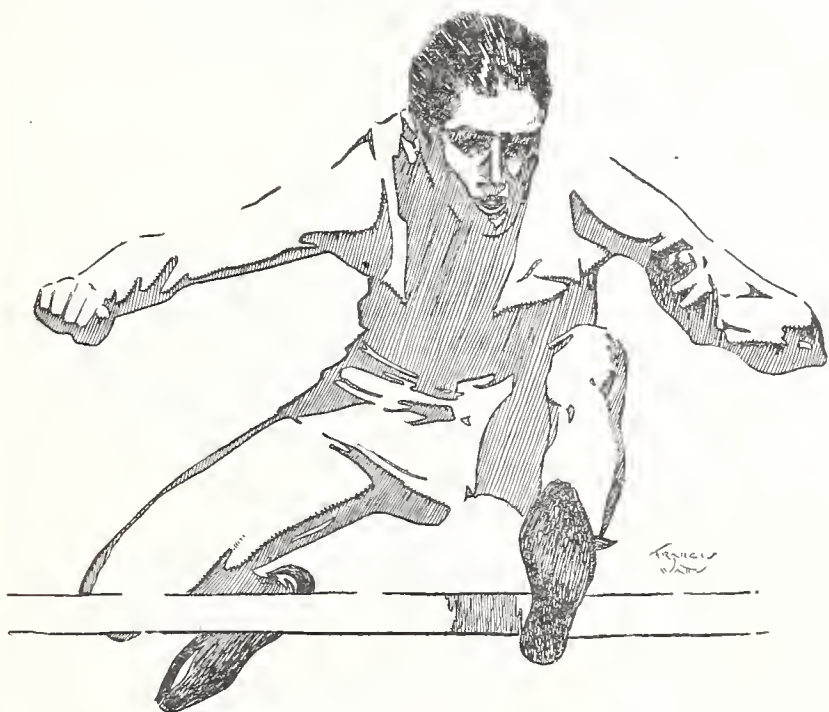
Human reproduction is similar in many ways to reproduction in the flower. Inside the human mother's body are minute germ cells, called ova. In the male sex glands a whitish thick fluid is made containing other minute germ cells, called sperms. When a sperm cell comes in contact with an ovum inside of the mother's body, it fertilizes it, thus making it capable of growing. It slowly develops, being constantly protected by the mother's body and continually nourished by the blood from her heart. It slowly takes the form of a human being, until, after nine months of growth, it has sufficient strength to live without the direct protection of the mother's body, and then is born a new human life into the world. Both before and after birth the mother sacrifices much for the new life.

### *The superiority of man.*

Reproduction in plant life is largely dependent upon the action of bees, the wind, and other natural forces. In animal life reproduction is almost automatic. The salmon simply obeys the reproductive instinct when the springtime comes. Man has the reproductive

instinct, but he has acquired the power to control it to a far greater extent than have the animals.

The sex instinct may be a source of destruction or a great blessing. If it be abused, disease and suffering may result for the man and his wife and children. If it be understood and controlled, it becomes a source of added strength and a richer and fuller life. The nature of the sex instinct may be understood by comparing it with other forces



### THE SEX IMPULSE AND ACHIEVEMENT.

The Sex Instinct in a Boy or Man Makes Him Want to ACT, DARE, POSSESS, STRIVE.  
When Controlled and Directed it Gives ENERGY, ENDURANCE, FITNESS.

in life. Fire is a great blessing to mankind. By means of it machinery is made to perform gigantic tasks. It warms our houses and cooks our food. The warmth and glow of a camp fire is a source of great pleasure to campers. When fire is controlled it is a valuable aid to man, but when it gets beyond control it may cause ruin.

The water above a dam becomes a source of power when directed into the turbines which run dynamos. If it be only held back by the dam it may accumulate and cause a break, resulting in a flood.



To be useful it must not only be held back; it must also be directed into the turbines. So sex energy must be controlled and directed. The youth entering into manhood needs the full power of his will to keep his sex desires from leading him into practices that weaken and damage himself and others. But the truer way of wisdom is in the occupation of the mind with healthful interests and the turning of the growing powers of youth into athletics, work, study, art, music—any constructive social activity. Thus life may be made much richer because of the sex instinct in us. Activities which give



**EVERY CHILD HAS THE RIGHT TO BE WELL BORN**  
**WILL YOU GIVE YOUR CHILDREN**  
**HEALTHY BODIES** **A FAIR START IN LIFE?**

opportunities for wholesome relations with girls and women are helpful to the youth and should be encouraged.

While it is important for a youth to understand the facts herein stated, it is not necessary for him to concern himself further with the facts about glands, germs, and other details referred to. In fact, he will be wise to dismiss such matters from his mind. The important thing for him to do is to lead an active, vigorous life, and nature, as a rule, will take excellent care of him.



## THE YOUNG MAN'S RELATIONSHIP TO GIRLS.

The young man should think of all girls as the future mothers of the race and understand that one of their most important functions in life is to become the mothers of healthy children who will make useful citizens. A nation may be well judged by its attitude toward women. The youth who is fair will treat every girl as he expects other boys and men to treat his own sister, his girl friend, or his sweetheart.

The craving for the companionship of girls and women should be satisfied. The man who keeps away from all girls usually has a harder fight against sex temptation than the man who seeks friends among girls of the kind he wants later to marry and whom he treats in a courteous and manly way. A young man's plan for marriage will often help to keep him straight when nothing else would.

In an accident at sea, when everyone is anxious to reach the life-boats, the rule for all men is "women and children first." If a man rushes in ahead of them he is looked upon as a coward. It is more important for men to protect girls and women from other dangers, especially from those dangers which threaten to ruin their lives. Every man who has any principle believes in fair play. He despises cheating. The young man who is fair will adopt for his own life the same standard he demands of the woman he expects to marry some day.

Each youth who grows up and marries becomes a link in a great chain of human beings. This chain reaches back into the past for thousands of years, and it may reach forward into the future for an even longer time. One false step may infect the racial stock and blight the lives of generations to come. If the young man keeps his body in good condition and lives a clean life, his descendants will in all probability be vigorous and useful citizens. The spark of life is to be accepted as a sacred trust to be transmitted undimmed to future generations.

ISSUED BY  
THE TREASURY DEPARTMENT  
THE UNITED STATES-PUBLIC HEALTH SERVICE  
16 SEVENTH ST. S. W.  
WASHINGTON, D. C., 1920.